



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re application of:

**Ivan A. COWIE et al.**

Appl. No: **09/638,192**

Confirmation No:

Filed: **August 15, 2000**

For: **A METHOD FOR SPECIFYING  
NON-TEMPORAL PULSE  
CHARACTERISTICS**

Art Unit: **2631**

Examiner: **Unassigned**

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**FEB 05 2002**  
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Atty. Docket No: **28549/165559**

Customer No:



**26694**

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**Information Disclosure Statement**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

This is an Information Disclosure Statement submitted under 37 C.F.R. § 1.97 within the time specified under 37 C.F.R. § 1.97(b).

In order to comply with applicant's duty of disclosure under 37 C.F.R. § 1.56, the U.S. Patent and Trademark Office is notified of the documents which are listed on the attached Form PTO-1449 and which the Examiner may deem relevant to patentability of the claims of the above-identified application. One copy of each of the listed documents is submitted herewith.

The present Information Disclosure Statement is being filed before the mailing date of the first Office Action on the merits, and therefore no Statement Under 37 C.F.R. § 1.97(e) or fee under 37 C.F.R. § 1.17(p) is required.

In view of the above, no further translation or statement of relevance is required, and as all requirements of 37 C.F.R. § 1.97 and all official guide lines pertaining to Information Disclosure Statements have been complied with, and it is therefore respectfully requested that

the Examiner consider the documents and make them of record.

Please charge any necessary fee or credit any overpayment in connection with this  
Information Disclosure Statement to Deposit Account No. 22-0261.

Respectfully submitted,

Date: January 29, 2002



Robert S. Babayi

Registration No. 33,471


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Substitute for form 1449A/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

*(use as many sheets as necessary)*

Sheet	1	of	2
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**Complete if Known**

Application Number	09/638,192
Filing Date	August 15, 2000
First Named Inventor	Ivan A. COWIE et al
Group Art Unit	2631
Examiner Name	Unassigned
Attorney Docket Number	28549/165559

## U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
CWJ	A1	4,928,316		HERITAGE et al.	05/22/90	<div style="text-align: right;"> <b>RECEIVED</b>  <b>FEB 05 2001</b>  <b>Technology Center</b> </div>
CWJ	A2	6,160,802		BARRETT	12/12/00	
CWJ	A3	5,610,907		BARRETT.	03/11/97	
CWJ	A4	3,728,632		ROSS	04/17/73	
CWJ	A5	5,377,225		DAVIS	12/27/94	
CWJ	A6	5,793,759		RAKIB et al.	08/11/98	
CWJ	A7	4,170,757		SKUDERA et al.	10/09/79	
CWJ	A8	4,641,317		FULLERTON	02/03/87	
CWJ	A9	4,743,906		FULLERTON	05/10/88	
CWJ	A10	4,813,057		FULLERTON	3/14/89	
CWJ	A11	5,960,031		FULLERTON et al.	09/28/99	
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CWJ	A13	4,979,186		FULLERTON	12/18/90	
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CWJ	A15	5,687,169		FULLERTON	11/11/97	
CWJ	A16	5,832,035		FULLERTON	11/03/98	
CWJ	A17	5,363,108		FULLERTON	11/08/94	

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## FOREIGN PATENT DOCUMENTS

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<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449A/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	09/638,192
		Filing Date	August 15, 2000
		First Named Inventor	Ivan A. COWIE et al.
		Group Art Unit	2631
		Examiner Name	Unassigned
Sheet 2 of 2	Attorney Docket Number	28549/165559	

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OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
GM	A18	S.V. MARIC et al., "A Class of Frequency Hop Codes With Nearly Ideal Characteristics For Use In Multiple-Access Spread-Spectrum Communications And Radar And Sonar Systems", IEEE Transactions on Communications, Vol.40(9):1442-1447, (1992)	
GM	A19	E. L. TITLEBAUM et al., "Time-Frequency Hop Signals Part I: Coding Based Upon The Theory Of Linear Congruences", IEEE Transactions On Aerospace And Electronic Systems", Vol. AES-17(4):490-493, (1981)	
GM	A20	E. L. TITLEBAUM et al., "Time-Frequency Hop Signals Part II: Coding Based Upon Quadratic Congruences", IEEE Transactions On Aerospace And Electronic Systems", Vol. AES-17(4):494-500, (1981)	
GM	A21	E.L. TITLEBAUM et al., "Ambiguity Properties Of Quadratic Congruential Coding", IEEE Transactions On Aerospace And Electronic Systems", Vol. 27(1): 18-29, (1991)	
GM	A22	R.A. SCHOLTZ, "Multiple Access With Time-Hopping Impulse Modulation", Communication Science Institute, University of Southern California, Los Angeles, CA (1993)	
GM	A23	A. ALBICKI et al., "Transmitter And Receiver Design For Pilot Project, Phase I", Technical Report #1, for Rochester Gas and Electric Corporation, pp.726-742, (1988)	
GM	A24	BELLEGRADA et al., "Time-Frequency Hop Codes Based Upon Extended Quadratic Congruences", IEEE Transactions On Aerospace And Electronic Systems, Vol.24(6):726-742, (1988)	
GM	A25	BELLEGRADA et al., "The Hit Array: An Analysis Formalism For Multiple Access Frequency Hop Coding", IEEE Transactions On Aerospace And Electronic Systems, Vol.27(1):30-39, (1991)	
GM	A26	BELLEGRADA et al., "Amendment to time-Frequency Hop Codes Based Upon Extended Quadratic Congruences", IEEE Transactions On Aerospace And Electronic Systems, Vol.27(1):167-172, (1991)	
GM	A27	DRUMHELLER et al., "Cross-Correlation Properties Of Algebraically Constructed Costas Arrays", IEEE Transactions On Aerospace And Electronic Systems, Vol.27:2-10, (1991)	
GM	A28	KOSTIC et al., "The Design Of New Optical Codes And Time-Hopping Patterns For Synchronous Spread-Spectrum Code Division Multiple-Access Communication Systems", IEEE, ICC, pp. 585-589, (1991)	

Examiner Signature	<i>[Signature]</i>	Date Considered	October 2, 2003
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